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AUTHOR Randle, LaDonna
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ABSTRACT

A study investigated whether third graders who attended preschool had significantly higher reading achievement scores than students who did not attend preschool. Subjects were 60 students at a public school located in a predominantly low and low middle socioeconomic neighborhood on the south side of Chicago, Illinois. Half the students had attended preschool, half had not. Comparison of students' reading scores on the Iowa Tests of Basic Skills indicated no statistically significant differences in reading achievement scores. Findings suggest that preschool attendance alone does not suggest evidence of higher reading achievement. (Contains 15 references and 1 table of data.) (RS)

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ED 404 630

What is the effect of pre-school attendance on reading achievement at the third grade?

LADONNA RANDLE

In 1996 about two-thirds of the nation's children between three and five years old were enrolled in an early childhood education program such as Head Start and other pre-school projects. In the Chicago area there are numerous pre-school, educational day care centers and head start programs in operation. Many of these programs make claims of attaining high achievement results in teaching children reading skills. However, there does not appear to be any conclusive evidence available which suggests that pre-school attendees can read any better than children who never attended a pre-school program. Over the past year, 743,288 children participated in Head Start programs nationwide at a cost of billion dollars.

All children need the boost of a high quality early childhood education. Educators and other concerned people need to determine how to best provide for the needs of young children and enable all children to reach their full potential. Prior to the 1900's, early childhood was not looked upon as an important, valuable, and viable years of the total life span.

Early childhood education is defined as the education of children from birth to age eight. It includes programs, as well as kindergarten and the primary grades.

Public schooling in the United States usually begins at age five or six, with enrollment in public school kindergarten or first grade. As kindergarten became part of the public school system, it was often considered as something different that was gifted on to the elementary grades. Public school educators often seemed unsure as to whether kindergarten really belonged. However, early childhood education has become more widely accepted as part of public education (Braum-Edwards, 1972).

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Most Nursery schools are based on philosophy of nuturance which is a concern for the child's social, physical, emotional, and intellectual needs. Nursery school teachers were responsible for bathing, dressing, and feeding along with educating the children. These children were taught self-caring skills (such as washing oneself and trying one's shoelaces) taking care of plants, animals, and the school environment. They were involved in music, language, reading readiness, , mathematics, and science activities. Play was also as important part of the program very much like pre-school (Bel, 1981).

The history of child care in the United States consists of sporadic attempts to provide care for workers children. These parents may be working , or not able to care for their children during the day for some other reason. Presently child care is offered in a variety of settings. Young children are cared for in the homes either by relatives or neighbors, or in a Child Care Center, licensed or un-licensed family day care homes are run on a small scale in private residences. Child care centers offer care and education on a larger scale. These centers serve three-four-and five years old children as well as infants and toddles. The child care center is open for a long period each day often from 6:00 a.m. to 6:30 p.m. It hours depend on the needs of the children's parents. Child care programs can and should be as good as the best nursery school, kindergarten, or Head Start program.

Pre-school education is a form of education for children three through five years of age, prior to their entry into the first elementary grade. Most preschools do not operate on a full day basis, and differs from Day Care and Child Care Centers, which

may provide equally good educational programs but focus on the all-day care of children. (Illinois Journal 1996).

In a sense, the term "pre-school" is misleading because of difference in orientation and activity between the pre-school and the school. Schools are generally considered responsible for teaching academic skills and content in areas such as language, reading, mathematics, social science, music, and art. Educators, on the other hand, are less concerned with teaching preschooler specific subjects than with building a background of experiences that will promote the later attainment of academic skills.

In preschools both personality development and building positive attitudes toward learning are regarded as important, with considerable allowance for adopting to individual abilities. There has been direct attempts to build a background of experience and knowledge, to develop motor skills, and to create a feeling of self-confidence so that children are motivated to try new activities and attempt tasks that are increasingly difficult (Elkind, 1981).

Much pre-school activity is concerned with play, such as building with blocks, constructing with wood, playing with sand and water, listening to stories and poems, singing songs, and playing musical instruments along with acting out situations in dramatic form and making stories.

During the 1960's and early 1970's experimental programs were devised for children from low-income families to compensate for educational deficits due to their home environment. One such program was the federally funded Project Head start,

begun in 1965.

Head Start is the oldest, largest and best known United States pre-school program. Originally intended as a program for 3 and 4 year old with parental involvement for disadvantaged youngsters, it has been found to be effective for raising educational attainment and decreasing special education costs. More recently however as Head Start programs have more numerous and the child poverty rates been criticized for uneven levels of staff training and education, and program quality.

The concept of pre-school in the United States was originated by Friedrick Wilhelm Froebel, in Germany during the 1800's. He was credited with founding kindergartens-"children' gardens." Froebel believed that play was the foundation for children's learning and envisioned the kindergarten as the child's bridge between home and school (Allyn & Bacon, 1992).

When parents are selecting preschools for their children, one of the first questions they ask is, "Do you teach reading? Reading is a communicative art involving both recognizing and understanding words. Teachers can do much in early childhood years to prepare children for reading. The ability to read is important in academic success. Educators, parents and policy makers all agree that reading is a vital part of literacy development.

Kindergarten programs in the United States serve primarily five year old children, although more four year old kindergartens are coming into existence and kindergartens in other countries enroll children ages three through six years of age. Kindergarten programs include crafts and art activities. The child's present life and

context is often used as a source of learning and is reflected in play. Thus blocks dolls, and miniature housekeeping materials are provided to present the child's life context. (West & Varlaam, 1990).

In earlier kindergarten teaching of reading was carefully awarded. It is still a major issue as academic skills are being taught in many kindergartens today. The kindergarten program has had strong and lasting effects on American education. It has focused on educational issues in a democratic society; the relationship of teachers, parents, and children whether the kindergarten, showed the used primarily to prepare children for primary grades; or to develop children's social skills and creatively (Eliason and Jenkins, 1994).

Currently, there is a broad debate about the importance of preparing children to meet the social and academic challenges of school expectations. One central idea is that attendance in pre-school programs is the solution to the development of lasting reading skills on the other hand, there are those who think that pre-school programs are simply a waste of money because any reading skills gained by children who attend them disappear when one to three years after the children start public school. "Campbell, et al. (1992) at the University of North Carolina at Chapel Hill conducted a 21 year longitudinal study of the effects of early childhood education on pre-schoolers, intellectual development and academic performance. The results were reported to show reading achievement gains can last even into a students teen years and even beyond. Specifically the study completed 15 years of follow-up data on 111 children in a special early intervention program. Each child was engaged in the study from

infancy through age 15. All of the children were born between the 1972 to 1977.

Campbell observed that their study program raised children's test performance up to 16. The standard deviation IQ points at age 3; left four-point IQ improvement at age 15; improved both math and reading scores; and reduced the need for special education classes and even cradle retention.

Researchers who participated in the Chapel Hill study argued that what took place in their early intervention program was actually no different from what any child who had a high quality day care program receives. They suggested that their program coned be replicated at any good home. As a result of these findings in their study, the researchers recommended that pre-school children should be given more cognitive stimulation with developmentally appropriate materials and techniques. One enriching pre-school home environment is also considered an important factor to children's academic success and achievement retention.

Ramsey (1994) a University of Alabama psychologist assured that intelligence is not changeable. He pointed to his own long term study of children at Chapel Hill, North Carolina, known as the Abecedarian Experiment, which provided educational and instructional help for children and their parents from birth through at least the age of five. At age 12, some four years after they were in longer in the program, the children continued to outscore control groups in reading and on IQ tests. His view that mental capacity is fixed has zero scientific support. However, Ramsey's study is one of the few to find lasting intellectual effects. He expressed beliefs that the Abecedarian Experiment began earlier than most lasted longer and provided more intensive services

than other similar programs and its results may have been affected. He also conceded that the achievement successes attained by children in his research may be in part due to the pre-school natal care provided by the program. He further speculated that the children's high achievement and retention may be attributable to an important biological advantage, affecting their mental development.

The United States Department of Health and Human Services (H.H.S.) (1985) conducted what is deemed the most comprehensive study ever done on Head Start, a synthesis of some 210 research reports. Findings from this composite data revealed few lasting benefits for head start children although children enrolled in Head Start enjoyed significant and immediate gains the study noted that in the long run, cognitive and socio-emotional test scores of former head start students do not remain superior to those children who did not attend head start. However, the report did find a small subset of studies showing that former head starters are less likely to be held back a grade or even placed in special education classes.

The High/Scope Foundation (1989) conducted perhaps the best known long term study of pre-school children's academic and social success. Starting in 1962, the study followed 123 children from poor homes in Ypselonti, Michigan. The children were randomly assigned to a group that attended the Perry Pre-School, a researcher designed a pre-school program and a group that did not. In the pre-school group, children received two years of pre-school instruction, weekly home visits and social services.

At the age of 19, the study found that the pre-school graduates were more likely

to be employed and less likely to have criminal records than the control group. Some other aspects about the Perry Program is that it spent $ 4,818.00 per child, per year., almost twice what Head start spent in 1990. Virtually all of the Perry teachers had post graduate degrees in early childhood education. Also, the teachers at Perry taught five along are in stark contrast to the ones found in most head start programs. Also, it is perhaps a major reason for the variance in results achieved by regular head start programs versus the Perry pre-school program. Obviously here the argument shifted from the children's gains in reading to one that raises the questions of what cost do we pay for their reading achievement.

Epstein (1989) cited a study of 200 pre-schoolers's in Michigan, California and New York which that children in classes with High/Scope trained teachers out scored comparison children on many measures of social inter-action, were more independent and leaded to have better language skills. According to explain, 40 percent of the programs sampled were Head Start programs. The High/Scope method of instruction emphasizes letting children initiate exploratory activities rather than having the teachers spend most of the day impairing academic information or directions. "The long-term successes of Perry Pre-School graduates has a lot to do with their learning to take responsibility for their own learning", noted Epstein (p.33-35).

Slavin, et al. (1989), John Hopkins University in Baltimore, at the center for pre-schooling for disadvantaged students have developed the "success for all" program for pre-school through the third grade. It emphasized extra help in reading, family support and teacher training. So far the results are encouraging; most of the third graders are

reading at grade level and many over." Helping and telling parents involvement is the key ingredient to the students' success", Slavin stated.

Fuerst (1974) Chicago Loyola University School of Social Work, performed a longitudinal study of the lives of 684 children most of whom attended two years of pre-school. In summary of his findings, Fuerst noted that while the children in his study showed remarkable early achievement in reading, they had lost most of their reading gains by the time they reached the high school level. In fact, his study revealed that 62 % of them graduated from high school. However, he found that result was better than the 49 % graduation rate among a control group of 676 non-center students from the same background, but well under the national average of about 80 % for 19 year older. Fuerst concluded that his study gives weight to a growing sentiment among early childhood educators that inner-city kids need much more than a year or two of pre-school. He warned that over estimating head start is not fair to the children.

Larsen et al. (1987) conducted a longitudinal study which examined the effects of pre-school attendance upon school achievement scores and out-of-school activities for 196 second and third grade children, 125 of whom were non-attenders. They were affiliated pre-school and 71 of whom were non-attenders. They were from low-risk educationally disadvantage families. Males who had attended pre-school scored significantly higher on reading vocabulary, total reading, spelling, total language, and total battery components of the achievement measures than did males who had not attended pre-school. A pre-school effect upon achievement scores for females from these age groups was not found. Contrary to assumptions that home and family

experiences were sufficient to enhance development and learning for low-risk children, the findings of this study seem to indicate that, for males pre-school attendance does have a significant effect on later school achievement scores, especially in language-related areas.

The findings indicate that pre-school attendance did not have an important role in the childrens' reading achievement scores, but it is an important role in the future education of our children. Further research definitely needs to be done in this area.

HYPOTHESES

NULL

Third graders students who attended pre-school will not obtain significantly higher reading achievement scores than students who did not attend pre-school.

PROCEDURES:

Population/Sample:

The population for this study will include 90 third graders students. The students attend a Chicago Public schools, located in a predominantly low and low middle socioeconomic neighborhood on the south side of Chicago. The population is composed of 100% "minority" students. From the 90 third grade students, the school records showed that 30 of the students attended pre-school while 60 did not attend pre-school . Thirty students were randomly selected from the sub-population. Data on

students reading scores and achievement levels were gathered from students 1995 IOWA Test of Basic Skills (ITBS).

Each spring the IOWA Tests of Basic Skills (ITBS) are administered to each student in Chicago Public School system. Two samples were identified from records of those students who had attended pre-school and those who did not attend pre-school. The reading results of the ITBS administered during the Spring of 1995 school year will be used in the study.

IOWA Test of Basic Skills; 1995 edition levels 9-14, forms 7 & 8. The within grade Kuder-Richardson (KR) twenty reliabilities for the eleven subtests and total scores are high, generally greater than .85, with many exceeding .90. The K-R twenty reliability of the composite score for each level of the test is .98. The inter-correlations between subtests are lower than correlations between any two of the vocabulary, reading, language, study skills or mathematics total score is shared in the 50% to 70% range.

Findings of the Study

The samples for the study included third grade students of a Chicago Public Elementary School. Each Spring students take the IOWA Test of basic Skills (I.T.B.S.). From the third graders two groups were randomly selected. School records were used for those who attended pre-school and those who had not attended pre-school. Results from the 1995 IOWA reading subtests were used as a basic for the study. A t test ($p.>.05$ one-tailed), for independent samples was done of these two sets of reading

scores to determine if there was a statisically significant difference in reading achievement levels. Table I summarizes the statistical analysis.

Table I

Means, standard deviations, and t tests for the Pre-school Group and Non-Pre-school group for reading achievement scores. For t-value to be significant at 0.05 alpha level, with 58 degrees of freedom, the t-value must be at least 2.0.

READING (N = 60)

Pre-school Group		**Non Pre-School**		**t-TEST**
Means	2.83	Means	2.65	1.07
S.D.	.793	S.D.	.458	

df = 58

+=1.08

p > .05, one-tailed

* not significant at the 0.05 level

Examination of the 1995 I.T.B.S. reading scores for the pre-school group and the non pre-school group indicates a not so significant difference in reading achievement between both groups. These findings presented in Table I permits the conclusion that children at the third grade level regardless if they attended pre-school or not outstanding reading scores.

Table I shows that the probability is smaller than 0.05, which is one tailed. The t-test value is 1.08 and in order to be significant at 0.05 alpha level, including the 58

degrees of freedom, the t-value must be at least 2.0.

In summary, the overall findings seem to indicate that pre-school attendance alone does not suggest evidence of reading achievement according to these results, it can not be conclusively stated that pre-school attendance has a positive effect on reading achievement for third grades. The null has shown the third graders who attend pre-school will not obtain significantly higher reading achievement scores than those students who did not attend pre-school .

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